

Managing Flows of International Tourism of Algeria by Using Pareto Analysis

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Abstract: Tourism in Algeria has witnessed a remarkable development in recent years, and we think that it is the result of the reforms undertaken by the government, as well as the many investments in the field of tourism. But it is criticized that she was not a specialist. Therefore, this study sought in order to allocate resources and direct them towards providing appropriate tourism products to tourists via Pareto analysis.

Our general assumption is that the preferences of foreign tourists may differ from the preferences of expatriate tourists, this is in the side of inbound tourism. As for outbound tourism, we try to find out its reasons for converting some of them into domestic tourism. We depend on statistical data from the Ministry of Tourism in the period 2015-2019. We have reached many results, perhaps the most prominent of which are: Determining the peak times for each tourist flow and the most important countries of inbound tourism and destinations for outbound tourism.

Keywords: Inbound Tourism; Outbound Tourism; Pareto; Algeria.

JEL classifications codes: Z31 ; Z32

I- Introduction:

Algeria has a huge physical and natural tourism potential. Thus, the government has reformed its legislation to facilitate foreign and domestic investments to attract massive tourist flows. It is known that international tourism flows, whether inbound or outbound, are characterized by independence, as it is difficult to control them directly, but it is possible to adapt to them and to attract them if their causes are understood.

Sometimes and at some times of the year, hotels and tourist resorts are almost empty, and sometimes the opposite, overcrowding occurs to the point where it is difficult to respond to demand.

Thus, this study came to identify and understand these tourist flows, whether incoming or outgoing, through the application of Pareto analysis, which is an appropriate approach for such cases.

The question of the study:

How Does applying Pareto analysis help to improve the managing of international tourism flows for Algeria?

Hypothesis:

1. According Pareto analysis, New Year's and summer season are the most times of high tourist flows;
2. Algerian expatriates are the future of Algeria's booming inbound tourism.

The Objectif of the study:

- Applying Pareto analysis to analyze the flows of international tourism of Algeria.
- Determining the peak times of inbound tourism to good prepare for the tourist season.
- Understand the reasons for outbound tourism, thus, working to transform outbound tourism into domestic tourism in order to preserve hard currency and ensure revenues.
- Determine which tourists visit Algeria the most according to their countries, and the countries that receive the most Algerian tourists.

The importance of the study:

- This study has a great importance because it deals with a sensitive sector which has the ability to be a key of development in Algeria.
- Using a new perspective to study the Algerian tourism sector by applying the Pareto analysis to take accurate picture.
- Utilizing recent data to analyze the tourism sector.
- Determine causes of weakness the tourism flow in Algeria.

Methodology:

The study was conducted over the period 2015 to 2019. This is the period of the actual advancement of the tourism sector by the government.

The quantitative approach has been adopted. Therefore, descriptive method and the case study method have been also used via reading various data and statistics across specific time periods, and trying to highlight the relationships between them in order to come up the results.

II- Background of the study:**1- Defining Tourism and tourist:****1-1. Defining Tourism:**

Conceptually, defining tourism precisely is a near-impossible task. Nevertheless defining tourism is done to produce a technical definition for statistical purposes such analyze economic sectors. As we embark on our study of tourism, it is helpful to begin with a common definition that has been accepted for decades: ‘Tourism is an economic and social phenomenon due to its ability to stimulate regional development.’ (José, Braga, & Vanessa, 2020, p. 1) However, this definition has a lack of accurate. So, there is another definition which is: ‘Tourism is a social, cultural and economic phenomenon related to the movement of people to places outside their usual place of residence, for which pleasure is the usual motivation’ (Fletcher, Fyall, Gilbert, & Wanhill, 2018, p. 5). Tourism means much more than can be expressed by a simple word, and it may be seen as both reflecting social practices and involving social representations. The term tourism is used to characterize a sociocultural phenomenon that involves transport, motivations, accommodation, hospitality, impacts and

the economic, cultural, social and environmental sectors affected and fuelled by the movement of people around the world.

To make the process of understanding the definition of tourism, Jose and others use three main ways to define tourism – behavioral, functional and ecological: (José, Braga, & Vanessa, 2020, p. 2)

- The behavioral definition involves the actions of individuals or entities that consider themselves part of the tourism industry. Certain practices are associated with tourism, such as travelling to see or experience a new place.
- The functional definition involves the ‘doing’ part of tourism, for example, flying, driving or hiking in an area.
- The ecological definition involves focusing on the environment in which the tourism takes place.

Defining the term ‘tourism’ is not as easy as it seems because it incorporates a number of different functions, from hotels to sightseeing. In addition, tourism can be further categorized into subtopics such as rural, surf and sport. So, Tribe’s view was that tourism is ‘the sum of the phenomena and relationships arising from the interaction, in generating and host regions, of tourists [visitors], business suppliers, government, communities and environments’ (Fletcher, Fyall, Gilbert, & Wanhill, 2018, p. 6).

Having discussed the concept of tourism, it can say that according Leiper, the term 'tourism' implied three basic elements: (Fletcher, Fyall, Gilbert, & Wanhill, 2018, p. 7)

1. Visitors, who, as travellers in this system, initiate the demand for travel for tourism purposes;
2. Geographical elements, which Leiper calls the ‘traveller-generating region’, the ‘tourism destination region’ and the ‘transit route region’;

3. The tourism industry, which Leiper initially took to be all those firms, organizations and facilities that exist to serve the specific needs and wants of visitors.

Today, the term ‘tourism’ is closely related to the terms ‘hospitality’, ‘recreation’, ‘entertainment’, ‘leisure’, ‘mobility’ and ‘movement’, but it is closest to the term ‘travel’. Very often, the two are used without a clear definition; in different parts of the world, they may even have different connotations. In general, the term ‘tourism’ is used by official organizations and the word ‘travel’ is used frequently in commercial names (Lohmann & Panosso Netto, 2017, p. 27). However, we can consider travel such that is broader than tourism because all forms of tourism are related to travel, but not all travel is for tourism.

Finally tourism is “the temporary movement of people to destinations outside their normal places of work and residence, the activities undertaken during their stay in those destinations, and the facilities created to cater to their needs.” (Cook, Hsu, & Taylor, 2017, p. 5)

As the definition shows, tourism includes a wide array of people, activities, and facilities, and most people would agree that it is a unique grouping of industries that are tied together by a common denominator—the traveling public or the tourists. Without tourists there would be no tourism industry. Tourists travel to attractions and find new attractions even when developers and locals have not yet found or promoted them. It is more common, though, that the tourist (or potential tourist) is the one who is bombarded with advertisements and hawkers trying to get them to spend their money. (Lew & Timothy, 2008, p. 23) Thus, we will discuss who the tourist is in the following element.

1-2. Defining Tourist:

We can say that, self-evidently, the tourist is one who engages in tourism. Tourism involves the movement of a person or persons away from their normal place of residence: a process that usually incurs some expenditure. (Holloway & Humphreys, 2016, p. 6) Tourism includes day trips (also known as *excursions*) which are trips that take someone away from their home, but do not involve an overnight stay. A day excursion can

be considered a recreation activity, though because it normally occurs well beyond the home place, the activities and services that are used are normally the same as those provided to tourists by the tourism industry. (Lew & Timothy, 2008, p. 24)

A further essential aspect in defining tourism is the separation of visitors into tourists or overnight visitors, when the trip includes an overnight stay, and same-day visitors or excursionists otherwise. However, modern transport and communication developments have made day trips an increasingly important economic activity through ease and speed of access both within a country and internationally, so they cannot be ignored in the assessment of tourism. (Fletcher, Fyall, Gilbert, & Wanhill, 2018, p. 4)

The term 'tourism' is further refined as the movement of people away from their normal place of residence. It had used the term 'visitor' to describe any person visiting a country other than that in which he has his usual place of residence, for any reason other than following an occupation remunerated from within the country visited. (Holloway & Humphreys, 2016, p. 6)

This definition was to cover two classes of visitor: (Holloway & Humphreys, 2016, p. 6)

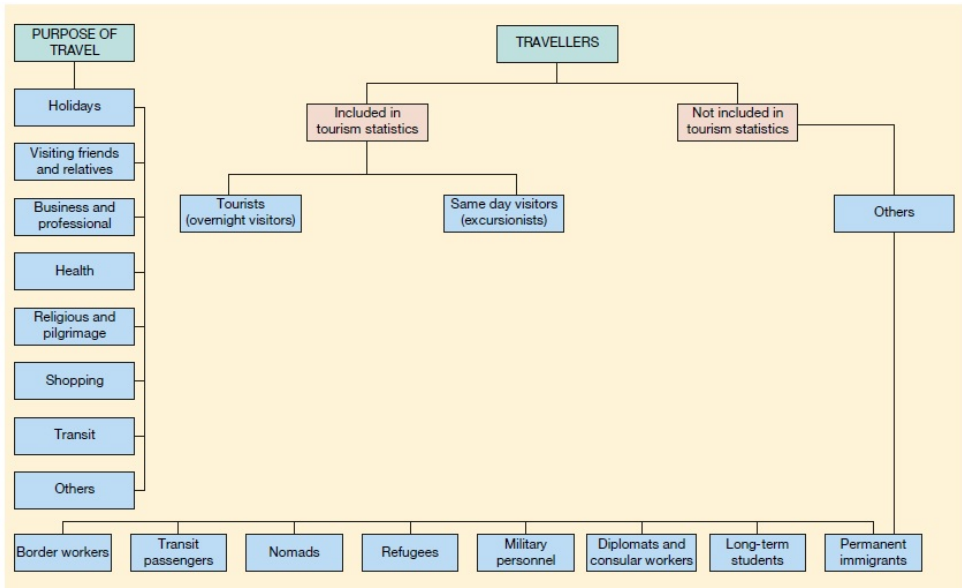
1. Tourists, who were classified as temporary visitors staying at least 24 hours, whose purpose could be categorized as leisure (whether for recreation, health, sport, holiday, study or religion) or business, family, mission or meeting;
2. Excursionists, who were classed as temporary visitors staying less than 24 hours, including cruise travellers but excluding travellers in transit.

In many tourist destinations, separating those who are tourists from those who are day-tripping recreationists is difficult. One way of doing this is to compare overnight tourist numbers estimated from hotel taxes and total visitor numbers estimated from attraction receipts. (Lew & Timothy, 2008, p. 23) The methodology is not perfect, but can be an important first step in

segmenting visitors into major types for marketing purposes. (Lew & Timothy, 2008, p. 24)

In regards to types of travelers, there are many classifications of theirs but the classifying by UNWTO is the most common .Figure 1 illustrates the guidelines produced by the United Nations World Tourism Organization to classify travellers for statistical purposes. (Holloway & Humphreys, 2016, p. 7)

Fig 1. Classifying travellers



Source: (Holloway & Humphreys, 2016, p. 7)

2- Forms of tourism:

2-1. Traditional Forms of Tourism:

Dispelling common perceptions that tourism is mainly about international travel, official classifications put forward by The UNWTO classifies three basic forms of tourism based on border crossing: (Holloway & Humphreys, 2016, p. 9)

1. Domestic tourism, involving residents of the given country travelling only within this country;

2. Inbound tourism, involving non-residents travelling in the given country;
3. Outbound tourism, involving residents travelling in another country.

Combinations of the basic three forms above lead to a further set of tourism categories used to identify visitors: (Fletcher, Fyall, Gilbert, & Wanhill, 2018, p. 4)

- Internal tourism, which includes domestic tourism and inbound tourism – that is, the activities of resident and non-resident visitors within a country as part of domestic or international trips;
- National tourism, which is the sum of domestic tourism and outbound tourism – that is, the activities of resident visitors within and outside the reference country as part of either domestic or outbound trips;
- International tourism, which covers inbound tourism and outbound tourism – namely the activities of resident visitors outside the country of reference either as part of domestic or outbound trips and the activities of non-resident visitors within the country of reference on inbound trips.

For example, if the country being considered is Algeria then visitors arriving in Algeria for a holiday would be counted as inbound tourism, while Algerian residents travelling out of the country on vacation would be counted as outbound tourism. Algerians visiting any other part of this vast country would be measured as domestic tourists, regardless of distance travelled.

It is important to consider the country of reference (in the example above, Algeria) because an outbound traveller for one country will be an inbound tourist for another. Thus, any Algerian travelling to Singapore would be counted as an outbound tourist for Algeria, but an inbound tourist from Singapore's perspective. (Holloway & Humphreys, 2016, p. 9).

2-2. Niche Forms of Tourism:

Tourism is a dynamic phenomenon and a highly trend-driven activity in a post-modern society where travellers constantly seek new and diverse experiences. This has led the tourism sector to harness marketing techniques to create different products and experiences for very specific market segments based on consumers' interests and values. A range of some of the key trends and developments in recent years are listed below with a brief explanation of their underlying philosophy and examples. (PAGE, 2019, p. 6)

Table 1. Niche forms of tourism

Trend	Explanation
Slow travel	Travel to a destination and savoring the journey by not flying, such as taking the train or bicycle so that the rush and stress is taken out of the travel experience and it is slowed down
Low-cost travel	Travel by budget carriers which provide very cheap tickets for those who can book a long way in advance
Volunteer tourism	Travel to destinations to volunteer one's services to help with community or environmental projects (e.g. rebuilding a community after a natural disaster)
Sport tourism	Travel to watch or participate in sport such as to visit the Olympic Games
Health and wellbeing tourism	Travel to improve one's quality of life and health with treatments at spas or health resorts
Medical tourism	Travel overseas to get low-cost medical treatment in countries such as India
Film tourism	Travel to a location or fictitious area popularized in a movie or television program (e.g. New Zealand and the <i>Lord of the Rings</i> trilogy)
Dark tourism	Travel to a location or locations that have been associated with death, disaster or macabre events, such as prisons or sites of torture (e.g. Auschwitz concentration camp)

Source: (PAGE, 2019, p. 6)

3- Sustainable Tourism is future of tourism:

Sustainable development is defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs. (Developement, 2022) The application of sustainable development to tourism is known as sustainable tourism, which has become an important part of planning for the conservation and development of natural and cultural resources. Sustainable tourism is important because travel should not have an adverse impact. Tourism should be managed in a way which can benefit the community and culture and minimize adverse

impact on the environment. Sustainable tourism is about showcasing the real identity of a destination and upholding its culture and values. (Arjona, 2020, p. 57) Sustainable tourism often includes an emphasis on mass transit, renewable resources, leave-no-trace activities and community development. The challenge of the sustainable development concept is how to balance environmental conservation (the sustainable part) with economic development (the development part). (Lew & Timothy, 2008, p. 21)

By the year 2030, number of people traveling is expected to reach 1.8 billion. Tourism sector holds the potential to destroy travel and the world through it or make the sector sustainable so that the future generations can continue to travel. Travel and Tourism has the potential to make the world a better place – by bringing economic benefits to poorer destinations, through cultural exchange and understanding, and through self-growth. The choice rests with humans to choose to deliver on that potential. (Arjona, 2020, p. 57) Nevertheless, sustainable tourism promotes respect between cultures and tolerance for diversity. Tourism can preserve the world and the many prevailing cultures. A tourist who is conscious will chose sustainable tourism. Such a traveler would respect the environment, the indigenous culture, and beliefs in social equality. Therefore, if sustainable tourism becomes “mainstream,” the world would benefit because we are evolving as a society towards one that is more sensitive and conscious, and that seeks to live in harmony, respecting our people and nature (Arjona, 2020, p. 57). Thus, Sustainable tourism is the future of tourism.

II- The empirical methodology:

1- Clarification the Terms:

1-1. Pareto Analysis:

Pareto Analysis is a statistical technique in decision-making used to select a limited number of tasks that produce a significant overall effect (also known as the 80/20 rule). Take quality improvement, for example. A vast majority of problems (80%) are produced by a few fundamental causes (20%). This technique is also called the vital few and the trivial many. (Duncan, 2021)

In the late 1940s, Romanian-born American engineer and management consultant Joseph M. Juran suggested the principle. He named it after Italian economist Vilfredo Pareto, who observed that 80% of income in Italy went to 20% of the population. Pareto later carried out surveys in some other countries and found that a similar distribution applied to his surprise. (Juran, 2019)

We can apply the 80/20 rule to almost anything. We uses Pareto analysis to guide corrective action to enhancement tourism sector in Algeria through determine the times and destination that recorded the most significant number of tourists.

1-2. International tourism of Algeria:

International tourism as we have seen including two flows: inbound tourism and outbound tourism. Inbound tourists are group of tourists without who reside in Algeria that visiting to Algeria. They divide into two groups: Foreign tourists and expatriates tourists. Inbound tourists are the citizens that travel abroad for tourism.

2- Overall view on tourism flows in Algeria:

2-1. Inbound tourism:

Table 2.Statistics about Inbound Tourism in Algeria

	2015	2016	2017	2018	2019
Foreigners	1 083 121	1 322 712	1 708 375	2 018 753	1 933 778
Growth Rate	/	22,12%	29,16%	18,17%	-4,21%
Emigrates	626 873	716 732	742 410	638 360	437 278
Growth Rate	/	14,33%	3,58%	-14,02%	-31,50%
Total	1 709 994	2 039 444	2 450 785	2 657 113	2 371 056
Growth Rate	/	19,27%	20,17%	8,42%	-10,77%

Source:(Ministry, 2022)

The above table represents statistics on the flows of tourists into Algeria, which mean inbound tourism. Be composed both Algerian expatriates residing abroad and foreign tourists, during the period 2015-2019. According the table, we note that this flow has witnessed a continuous increase from 2015 to 2018, that is, except for the year 2019, which witnessed a decrease, perhaps due to the political conditions that occurred at that time.

As for the continuous growth of inbound tourism, we think that it is caused by two things. The first is the reforms undertaken by the government; this resulted in an increase in tourism projects and resorts. In addition to the advertising campaign to promote tourism in Algeria as an undiscovered tourist destination, abounding with unusual natural components .

The highest total flow of inbound tourism was in 2018, reaching more than 2.5 million tourists, where foreigners representing about 2 million, and expatriates representing the rest. As it is known, Algeria has millions of immigrants and expatriates around the world. And despite that, the attracting them to tourism in their country is still not strong.

2-2. Outbound Tourism:

Table 3.Statistics about Outbound Tourism in Algeria

	2015	2016	2017	2018	2019
Outbound	3 638 140	4 529 524	5 058 404	5 609 947	5 731 814
Growth Rate	/	24,50%	11,68%	10,90%	2,17%

Source:(Ministry, 2022)

The above table represents statistics on the flows of citizens out of the Algeria for the purpose of tourism, during the period 2015-2019. According to the table, we have noted that this flow has witnessed a continuous increase from 2015 to 2019. The reason for this continuous increase, we believe, is due to the improvement in living standard of citizens, which

allowed and enabled them to afford the exorbitant expenses of tourism abroad.

Also, the highest volume of outbound tourism had been in 2019. and this is contrary to what we have noticed in the inbound tourism, where we had recorded a weakness in 2019, and we have explained that it is due to political conditions, which means that the outbound tourism were not affected by the political conditions, and therefore it can be said that outbound tourism is affected by economic conditions more than political conditions.

In the next element, we will apply Pareto analysis onflows of tourism per month and per country.

3- Applying Pareto Analysis on tourism flows:

3-1. Applying Pareto Analysis on Inbound tourism:

3-1.1. Pareto Analysis based on months

First: flows of foreign tourists

Table 4.Applying 20% Rule on Flows of Foreign Tourists per Month

Months	Mean	Ratio	Cumulative Percentage	Percentage of Pareto 20%
May	154449	9.57%	9.57%	%22.34
April	150544.6	9.33%	18.90%	
September	138764.8	8.60%	27.51%	
October	138581.8	8.59%	36.10%	
November	137969.6	8.55%	44.65%	
August	137299.4	8.51%	53.16%	
July	132541.8	8.22%	61.37%	
June	130377	8.08%	69.45%	
December	128102.6	7.94%	77.39%	
March	123977	7.68%	85.08%	
February	122004	7.56%	92.64%	
January	118736.2	7.36%	100.00%	
	1613347.8	100.00%		

Source:(Ministry, 2022)

The above table represents the distribution of foreign tourists coming to Algeria according to the months of the year. We have calculated the

average monthly visit over a period of five years, i.e. during the period 2015-2019. Then we arranged them in descending order from biggest to smallest. In order to apply the Pareto analysis, it is necessary to adhere to the 80/20 rule, that is, to search for 20 percent of the months that affect 80 percent of the tourists, as 20 percent of the months had been obtained as follows: $12 * 20/100 = 2.4 = 3 \text{ months}$

Therefore, 20 percent was considered to be three months of the most inbound tourism had recorded. Where it appears from the table that they are the following three months in order: May, April and September. We note that they are the months of desert tourism, which means that foreigners prefer desert tourism over other tourism products such as beach tourism and others. As these three months received almost a third of foreign tourists, or 27.51 percent of all foreign tourists who visited Algeria. Therefore, we can conclude that the promotion of inbound tourism is in the first place by developing the desert tourism as an attractive factor for foreigners. Algeria abounds on a huge desert is the Sahara desert.

Second: Flows of Expatriate Tourists:

Table 5.Applying 20% Rule on Flows of ExpatriateTourists per Month

Months	Mean	Ratio	Cumulative Percentage	Percentage of Pareto 20%
July	112666.4	17.82%	17.82%	%41.35
August	81867.6	12.95%	30.76%	
April	66952.2	10.59%	41.35%	
June	52003.2	8.22%	49.58%	
March	45569	7.21%	56.78%	
May	43165.8	6.83%	63.61%	
February	42941.8	6.79%	70.40%	
October	42092.2	6.66%	77.06%	
December	38929	6.16%	83.21%	
January	37895.6	5.99%	89.21%	
September	37662.8	5.96%	95.16%	
November	30585	4.84%	100.00%	
	632330.6	100.00%		

Source:(Ministry, 2022)

The above table represents the distribution of expatriates coming to Algeria by months of the year. Knowing the most attractive times of the year for expatriates, helps in preparing well for the tourist seasons, creating appropriate and comfortable conditions to ensure the best tourist experience for expatriates in their country, urging them to return and continuing to spend holidays in their country, as well as making them ambassadors of Algerian tourism in their countries of residence.

According to Pareto's analysis, the three months that represent 20% are the following months: July, August, and April. This represents 41.35 percent of the total number of expatriates coming to their country for the purpose of tourism throughout the year. Moreover, we note that they are months representing summer tourism, which means that expatriates, most of them, visit Algeria to spend their summer vacation. Accordingly, the appropriate tourism product for them is products that are compatible with summer tourism, such as beach tourism and others. As these three months received almost half of the number of expatriate tourists; therefore, we can conclude that the promotion of inbound tourism of expatriates is primarily by developing summer tourism, as Algeria has many beaches and parks.

3-1.2. Pareto Analysis based on original country

First: Flows of Foreign Tourists

The table 6 represents the distribution of inbound tourism of Algeria according to their countries to know the most visited countries to Algeria. In order to good prepare for the tourist seasons.

We also have calculated the average visit of tourists from each country to Algeria over a period of five years, i.e. during the period 2015-2019. Then we arranged them in descending order from largest to smallest. In order to apply the Pareto analysis, it is necessary to adhere to the 80/20 rule, that is, to search for 20 percent of the most visited countries, which according to official statistics represent nine countries as shown in the table, that affect 80 percent of tourists. As 20 percent of the most visited countries had been obtained as follows: $9 * 20/100 = 1.8 \approx 2$ countries

Table 6.Applying 20% Rule on Flows of Foreign Tourists per Country

Countries	Mean	Ratio	Cumulative Percentage	Percentage of Pareto 20%
Tunisia	1002369.4	70.90%	70.90%	83.69%
France	180835	12.79%	83.69%	
Morocco	68354.4	4.83%	88.53%	
China	40906	2.89%	91.42%	
Spain	41220.2	2.92%	94.33%	
Turkey	33652.8	2.38%	96.71%	
Italy	25181.2	1.78%	98.50%	
Germany	12237.8	0.87%	99.36%	
Britain	9025	0.64%	100.00%	
	1413781.8	100.00%		

Source:(Ministry, 2022)

According to table we have noted that 20% had been considered the two countries that recorded the most inbound tourism to Algeria, as it appears in the table that they are the following countries in order: Tunisia and France. Algeria received from these two countries 83.69 percent of the visitors of the countries most visited Algeria. Moreover, we note that these countries are close to Algeria, whether geographical proximity, ethnic proximity or existence the historical ties.

First: Flows of Foreign Tourists

The table 7 represents the distribution of Algerian expatriates coming to Algeria according to their countries of residence, in order to know the most expatriates who visit Algeria according to their countries of residence. In order to determine the plans of the advertising campaign, and on the other hand, a good preparation for the tourist seasons by creating appropriate and comfortable conditions to ensure the best tourist experience for expatriates in their country.

Table 7.Applying 20% Rule on Flows of ExpatriateTourists per Country

Countries	Mean	Ratio	Cumulative Percentage	Percentage of Pareto 20%
France	497392.4	82.11%	82.11%	82.11%
Spain	50449.8	8.33%	90.44%	
Tunisia	32529.8	5.37%	95.81%	
Belgium	12804	2.11%	97.93%	
Britain	6404.6	1.06%	98.98%	
Canada	6156	1.02%	100.00%	
	605736.6	100.00%		

Source:(Ministry, 2022)

We also have calculated the average visit of tourists from each country to Algeria over a period of five years, i.e. during the period 2015-2019. Then we arranged them in descending order from biggest to smallest. In order to apply the Pareto analysis, it is necessary to adhere to the 80/20 rule, that is, to search for 20 percent of the most visited countries, which according to official statistics represent six countries as shown in the table, that affect 80 percent of tourists. As 20 percent of the most visited countries had been obtained as follows: $6 * 20/100 = 1.2 \approx 1$ country

Thus, 20 percent was considered to be one country, the country with the most influxes to Algeria, where it appears from the table that it is the Algerian community residing in France. And this is what consistent with the overall statistics that confirm that the largest Algerian community abroad is in France. However, we note from the table that the rate of The influx of expatriates during a period of five years recorded only half a million arrivals, which is a small number compared to the size of the Algerian community in France.

3-2. Applying Pareto Analysis on Outbound tourism:

3-2.1. Pareto Analysis based on months

Table 8.Applying 20% Rule on Flows of Outbound Tourism per Month

Months	Mean	Ratio	Cumulative Percentage	Percentage of Pareto 20%
August	821921	16.73%	16.73%	35.18%
July	481379.4	9.80%	26.52%	
March	425385.8	8.66%	35.18%	
December	423523	8.62%	43.80%	
September	421813	8.58%	52.39%	
November	396723.2	8.07%	60.46%	
October	390299.6	7.94%	68.40%	
May	360179.4	7.33%	75.73%	
April	359813.6	7.32%	83.06%	
January	297229.8	6.05%	89.11%	
June	278507	5.67%	94.77%	
February	256791	5.23%	100.00%	
	4913565.8	100.00%		

Source:(Ministry, 2022)

The above table represents the distribution of citizens residing in Algeria who made tourist trips abroad according to the months of the year, i.e. what is known as outbound tourism. In order to know which the most times of the year that the demand for outbound tourism is increases. And also to understand its causes to try to provide some tourism requirements in the form of tourism products that may contribute to transform some outbound tourism towards domestic tourism to preserve hard currency, ensure economic revenues, generalize tourism quality, and promote tourism services in general.

According to the table, and after applying the Pareto analysis, the three months, which represent 20 percent of outbound tourism of Algeria, are the following months: August, July and March. It represents 35.18 percent of all citizens traveling abroad for the purpose of tourism, i.e. more than a third. We note that these months represent holidays, whether social holidays such as summer holidays or school holidays such as March holidays. Accordingly, the appropriate tourism product for them is products

that are compatible with leisure tourism, rest and spending happy times in a suitable atmosphere. Therefore, attracting them by preparing appropriate tourism products may contribute to substituting expenses of outbound tourism with revenues of domestic tourism.

3-2.2. Pareto Analysis based on original country:

Table 8.Applying 20% Rule on Flows of Outbound Tourism per Country

Countries	Mean	Ratio	Cumulative Percentage	Percentage of Pareto 20%
Tunisia	2530986.5	50.44%	50.44%	76.95%
France	1330366.5	26.51%	76.95%	
Saudi Arabia	298164.25	5.94%	82.89%	
Spain	289446.5	5.77%	88.66%	
Turkey	268282.75	5.35%	94.00%	
UAE	79329.25	1.58%	95.58%	
Morocco	78062.5	1.56%	97.14%	
Qatar	57772.25	1.15%	98.29%	
Egypt	43631.5	0.87%	99.16%	
Canada	42132.5	0.84%	100.00%	
	5018174.5			

Source:(Ministry, 2022)

The above table represents the distribution of citizens residing in Algeria who have taken tourist trips abroad by destination i.e. outbound tourism. In order to know the most attractive countries for Algerians.

We also have calculated the average of outbound tourism to each country from Algeria over a period of five years, i.e. during the period 2015-2019. Then we arranged them in descending order from biggest to smallest. In order to apply the Pareto analysis, it is necessary to adhere to the 80/20 rule, that is, to search for 20 percent of the most visited countries, which according to official statistics represent ten countries. as shown in the table.

Therefore, the 20 percent had been calculated as follows: $10 * 20/100 = 2$
== two countries.

Therefore, 20% are the countries receiving the most tourist flows from Algeria, as it appears from the table that they are the following countries in order: Tunisia and France. As these two countries have received 76.95 percent of the Algerians who visited abroad for the purpose of tourism. We note that they are both pioneering countries in the field of tourism services. Tunisia is known for its tourism services, the sophistication of its resorts and hotels, and its distinctiveness at reasonable prices, while France is a world-renowned tourist destination. Thus, we conclude that one of the reasons for the Algerians flock to these two countries is to seek to benefit from high-end tourism services.

III- Results and discussion:

1- Results:

We have recorded several general results, including:

- The following three months, in order: May, April and September, recorded the most influx of foreign tourists to Algeria.
- The following three months, in order: May, April and September, recorded the most influx of foreign tourists to Algeria.
- According to the most popular period for the influx of foreign tourists, desert tourism is the most preferred by foreign tourists.
- The following three months, in order: July, August and April, witnessed the most influx of expatriates to Algeria.
- According to the most popular period for the influx of foreign tourists, summer tourism is the most preferred by tourist expatriates.
- The two countries sending the most inbound tourism to Algeria are, in order: Tunisia and France. Thus, we conclude that Algeria's tourism promotion is weak.

- The weakness of Algeria's tourism promotion is the reason for its failure to convey its tourism image to many countries.
- Most of the flows of expatriate tourists to Algeria are from the Algerian community residing in France, despite this, it is a small number compared to the size of the Algerian community in France.
- The following three months, in order: August, July and March, recorded the most influx of outbound tourism from Algeria.
- We note that the most popular period for outbound tourism is the holidays, whether social holidays such as summer holidays or school holidays such as March holidays.
- The two countries receiving the most outflows from Algeria are, in order: Tunisia and France.

As for the results related to the hypotheses, we conclude the following:

- The first hypothesis, which is that: ' New Year's and summer season are the most times of high tourist flows.' is partially accepted, i.e. it have achieved only in the summer season when we have seen there are many tourist flows;
- As for the second hypothesis, which says: Algerian expatriates are the future of Algeria's booming inbound tourism', is partially accepted, because the tourist is very important to success tourism sector, but the main factor to enhancement tourism sector in Algeria is the large investment to establishing many tourist resorts that present good services and good prices.

2- Suggestions:

Based on the results obtained through this study, we suggest the following:

- Developing desert tourism to enhance inbound tourism, as Algeria abounds in the vast desert of the Great Sahara, i.e. Geographical advantage.
- Developing summer tourism to attract expatriate tourists via establishing the tourist resorts at the beaches.

- Developing tourism promotion and information for Algeria to convey its tourism image to many countries.
- Launching survey research to study the preferences of expatriates to prepare tourism programs that are compatible with them.
- Enhancing cultural tourism so that tourism becomes a bridge to link the sons of expatriates with their mother country.
- Develop tourism products with international standards to reduce outbound tourism and transform it into domestic tourism.
- Orienting cultural festivals, launching promotional offers, and the tourist discount season for hotels and resorts, in line with these times, 'March and August ', to attract outbound tourism.
- Investing in projects of tourist villages that provide high-end services at reasonable prices, which contribute to converting some of the outbound tourism expenditures into domestic tourism revenues, and attract more revenues of inbound tourism.

Conclusion:

Through this study, we have determined the peak times for tourist flows, both inbound and outbound. Thus, suggesting appropriate tourism products to positively impact those flows. On the other hand, this study helps to develop the tourism of Algeria.

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